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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,293	01/27/2004	James A. Zagzebski	1512,023	9187
23598	7590	11/19/2007	EXAMINER	
BOYLE FREDRICKSON S.C. 840 North Plankinton Avenue MILWAUKEE, WI 53203				SHAHRESTANI, NASIR
ART UNIT		PAPER NUMBER		
3737				
NOTIFICATION DATE			DELIVERY MODE	
11/19/2007			ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@boylefred.com

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/765,293	ZAGZEBSKI ET AL.	
	Examiner Nasir Shahrestani	Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 September 2007.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,5-21 and 25-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1, 5-21, 25-46 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 15 March 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

This action is in response to Applicant's communication filed 09/04/2007.

Claims 2-4, 22-24, have been cancelled,

Claims 1, 5-21, 25-46, are pending.

### *Response to Arguments*

Applicant's arguments filed 9/4/2007 have been fully considered but they are not persuasive. Applicants argue that the claimed language as presented teaches "*that strain is calculated from echo measurements at each angle and then two strains measurements at different angles are compounded to produce a compounded strain measurement along a given angle*". Examiner respectfully disagrees in that the claim language as shown does not describe the limitation as described above, leaving the steps within the method to be open to any order within a procedure. The prior art of record (Lin '597) is a system that is operable to carry out the mentioned steps of the claimed language of claims 1 and 21, regardless of a specific order. Lin '597 teaches a combination of echo measurements along different angles to produce a single focused echo measurement as affirmed by Applicants, however the claimed language does not teach away from the teaching of Lin '597 as currently presented. Furthermore, examiner maintains that Ueki et al. '656, teach probability distribution functions such as, for example, Poisson distribution (col. 15 lines 4-7).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claim 1, 5-7, 13-21, 25-27, 31, 33-46** are rejected under 35 U.S.C. 102(b) as being anticipated by Lin (U.S. 6,068,597).

**Regarding claims 1 & 21**, Lin teaches various methods for identifying tumors using elastographic imaging (col. 1 lines 46-67; col. 2 lines 1-8), in which Doppler resonance response to the vibration of paired audio transducers (element 112) which yields strain displacement (col. 5 lines 30-33) which is a measurement related to strain, the transducer is an electronically steered (col. 4 line 42) phased array which therefore is steered to different angles to form a sector scan, the different levels of audio output power (col. 5 line 5) resulting in different levels of vibration compressibility over which echographic samples are taken for a region of interest (embedded tissue element 422), and processor compounds this data from different angles to form a measurement for a voxel (col. 4 lines 44-48), examiner construes pixels gathered for three-dimensional representation to be voxels by definition. Lin further teaches wherein the processor provides a strain extractor (col. 5 lines 39-42) and a combiner operating together to receive a set of echo signals and produce the compounded strain measurement (col. 1 lines 56-65).

**Regarding claims 5-7**, Lin also teaches that after allowing a predetermined amount of time for a resonance vibration to stabilize, the sequencer initiates acquisition of a spectral data point (col. 7 lines 35-38).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 8-12, 28-30, 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (U.S. 6,068,597) in view of Ueki et al. (U.S. 6,377,656 B1). Lin teaches all the limitations of claim limitations of claims 1-7 and 21-27 as described but does not specifically teach the varying weighting functions related to an estimate of Poisson's ratio. In the same field of endeavor, Ueki et al. teaches an imaging apparatus and method for manipulating weighting function of normal distribution (col. 14 lines 66-67 and col. 15 lines 1-7). It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the apparatus and method as taught by Lin and to have incorporated the teachings of Ueki et al. since the weighting function is never restricted to that of normal distribution and manipulation would be advantageous.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nasir Shahrestani whose telephone number is 571-270-1031. The examiner can normally be reached on Mon.-Thurs: 7:30-5:00, 2nd Friday: 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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NSS  
10/30/2007

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